



COVET RANGE OF INDUSTRIAL/COMMERCIAL/ RESIDENTIAL WATER SOFTENING SYSTEM

COVET Offers highly efficient Softening Plants which are designed to treated hard water to suit for various applications. Treated Water is of consistency quality with low residual hardness throughout the service cycle. The high synthetic resin is used to exchange Sodium ion with hardness forming Calcium and Magnesium ions. After producing desired output, the resin is regenerated with (NaCl) Sodium Chloride solution after which unit is again ready to deliver next batch. These units are easy to operate and with low maintenance. These softening systems can be designed and manufactured upto capacities of 200 m³/hr, depending upon the inlet water hardness level.

We design and manufacture very efficient Water softeners that are effective in reducing the hardness of the Water. They help in producing commercial zero soft Water by highly acidic cation exchanger resin, which removes calcium and magnesium ions from the Water. COVET as one of the leading Industrial/commercial Water softening plant manufacturers based in India, we make our products available to our customer's at the most competitive rates. These Water softeners are available in customized Material of construction like-MSRL/MSEP/FRP/MSFRP/ client's requirement.

The Softening Process

Water is considered 'hard' when it has excessive levels of calcium and magnesium dissolved in it. Hard Water can lead to the following Water problems:

1. Scale build-up on heating and cooling systems, leading to increased electricity costs and breakdowns.
2. Scale build-up in pipes, resulting in decreased flow rates.
3. Staining/Scaling on surfaces

The pressurized inlet hard water is passed through the softener vessel which consists of a bed of cation resin in sodium form. The hardness ions Ca & Mg are taken up by resin and in exchange sodium ions are relinquished from the resin. Raw water will continue to get softened till the resin gets exhausted. Bringing back the resin

The production stage of the softening process may be represented by the following reactions:



The surface of the resin gets coated with the calcium and magnesium minerals. The resin is cleared by flushing a strong sodium (salt) solution (NaCl) prepared in the brine tank. The sodium ions are powerful and they easily overpower the calcium and magnesium ions and drive them off of the resins which is later drained out of the unit.

Salient Features of COVET Water Softeners

- User friendly and low maintenance System
- Require less foot print
- Manual/Automatic system as per client's requirement
- Low power consumption
- Reduction of scales and clogging in pipes and vessels
- Increases the efficiency and service life of post treatment equipments
- Available in customized MOC as per client's requirement

Applications

- Low Pressure Boiler feed.
- Process Water
- Cooling water make-up
- HVAC & Cooling Tower
- Prevents scale formation

to its original form is called regeneration of resin. Softener resin is regenerated by sodium chloride (NaCl).

In this process hard water is converted into soft water. Thus the calcium and magnesium ions responsible for the hardness in the incoming water, are replaced by the less harmful and acceptable sodium ion thereby making the water soft. As there is an exchange of cations with a preference for the sodium ion, a cation exchange resin in the sodium form is used in the process.

The conventional resin employed for the softening process is the strong acid cation (SAC) resin the sodium form. All the hardness, both temporary and permanent, present in water is removed. The hardness is easily reduced to commercial zero level of hardness

The regeneration stage of the softening process may be represented by the following reactions.



The regeneration of the softener consists of the following steps in sequence

- Backwash
- Injection of sodium chloride solution
- Rinse



Covet Water

COVET WATER SOLUTION PVT. LTD.

Shanti Tower, A-403, Plot no 272, Sector -5, Opp. Dena Bank,
Charkop, Kandivali West, Mumbai 400067.

Contact us: +91 7304822762 / 7304822764 | Email : covetwater@gmail.com